UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS

P O Box 1450 Alexandria, Virgima 22313-1450 www.usplo.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

27896 7590 11/09/2009 EDELL, SHAPIRO & FINNAN, LLC 1901 RESEARCH BOULEVARD SUITE 400

ROCKVILLE, MD 20850

EXAMINER

AHMED, ENAM

ART UNIT PAPER NUMBER

2112

DATE MAILED: 11/09/2009

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/534,359	11/04/2005	Cyril Valadon	0470.0008C	4862	
TITLE OF INVENTION: FORMAT DETECTION					

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	02/09/2010

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 1SI. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and I/2 the ISSUE FIEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or Fax (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where

appropriate. All further indicated unless correct maintenance fee notifica	correspondence includir ed below or directed oth tions.	ng the Patent, advance of nerwise in Block 1, by (rders and notification of r a) specifying a new corre	naintenance fees wi spondence address;	ill be and/or	mailed to the current (b) indicating a sepa	correspondence address as rate "FEE ADDRESS" for	
CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)				Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.				
27896	7590 11/09	/2009	nav			-		
1901 RESEARC SUITE 400	PIRO & FINNAN. CH BOULEVARD	, LLC	I he Stat add tran	Cert reby certify that this es Postal Service w ressed to the Mail smitted to the USPI	ificate s Fec(s ith suf Stop 'O (57	of Mailing or Transa Transmittal is being ficient postage for firs ISSUE FEE address 1) 273-2885, on the da	nission deposited with the United t class mail in an envelope above, or being facsimile ate indicated below.	
ROCKVILLE, N	MD 20850						(Depositor's name)	
							(Signature)	
			L				(Date)	
APPLICATION NO.	FILING DATE		FIRST NAMED INVENTOR		ATTO	RNEY DOCKET NO.	CONFIRMATION NO.	
10/534,359	11/04/2005		Cyril Valadon	•		0470.0008C	4862	
TITLE OF INVENTION	: FORMAT DETECTIO	N						
APPLN, TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE	FEE	TOTAL FEE(S) DUE	DATE DUE	
nonprovisional	NO	\$1510	\$300	\$0		\$1810	02/09/2010	
EXAM	IINER	ART UNIT	CLASS-SUBCLASS]				
AHMED	, ENAM	2112	714-795000	•				
Change of correspond CFR 1.363).	ence address or indicatio	n of "Fee Address" (37	2. For printing on the p					
	ondence address (or Cha B/122) attached.	nge of Correspondence	(1) the names of up to or agents OR, alternati	 3 registered patent vely, 	attorn	eys 1		
			(2) the name of a single registered attorney or	e firm (having as a	memb	er a 2		
PTO/SB/47; Rev 03-0 Number is required.	ication (or "Fee Address')2 or more recent) attach	ed. Use of a Customer	2 registered patent atto listed, no name will be	rnevs or agents. If n	io nam	e is 3		
3. ASSIGNEE NAME A	ND RESIDENCE DATA	A TO BE PRINTED ON	THE PATENT (print or ty	ne)				
PLEASE NOTE: Un	less an assignee is ident	ified below, no assignee	data will appear on the p	atent. If an assigne	e is id	entified below, the do	ocument has been filed for	
(A) NAME OF ASSI		netion of this form is NC	(B) RESIDENCE: (CITY					
(-)			(-,			,		
			_	_			_	
Please check the appropr	iate assignee category or	categories (will not be p	rinted on the patent):	Individual 🚨 Cor	rporati	on or other private gro	up entity 🗖 Government	
4a. The following fee(s)	are submitted:	4	b. Payment of Fee(s): (Plea	se first reapply an	y prev	iously paid issue fee	shown above)	
Issue Fee			A check is enclosed.					
Advance Order	vo small entity discount p # of Copies	permitted)	Payment by credit car The Director is hereby	authorized to chars	e the r	equired fee(s), any det	ficiency, or credit any	
			overpayment, to Depo	sit Account Number	r	(enclose a	extra copy of this form).	
5. Change in Entity Sta	tus (from status indicated s SMALL ENTITY statu		☐ b. Applicant is no lon	ger claiming SMAI	LENT	TITY etatue See 37 CF	3R 1 27(a)(2)	
			ed from anyone other than t k Office.					
interest as shown by the	records of the United Sta	tes Patent and Trademarl	k Office.					
Authorized Signature				Date				
Typed or printed nam	e	Registration No.						
This collection of inform an application. Confiden submitting the complete this form and/or suggest Box 1450. Alexandria. V	nation is required by 37 C tiality is governed by 35 d application form to the ions for reducing this but irginia 22313-1450. DC	FR 1.311. The informati U.S.C. 122 and 37 CFR USPTO. Time will var rden, should be sent to the NOT SEND FEES OR	on is required to obtain or a 1.14. This collection is est of depending upon the individual to the Chief Information Office COMPLETED FORMS TO	retain a benefit by th timated to take 12 m ridual case. Any co er, U.S. Patent and 1 O THIS ADDRESS.	e publ ninutes nment Fraden SENI	ic which is to file (and to complete, includin s on the amount of tir hark Office, U.S. Deps O TO: Commissioner 1	by the USPTO to process) g gathering, preparing, and ne you require to complete tutment of Commerce, P.O. for Patents, P.O. Box 1450,	
Alexandria, Virginia 223	13-1450.							

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS

P O Box 1450 Alexandria, Virgima 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/534,359	11/04/2005	Cyril Valadon	0470.0008C	4862	
27896 75	590 11/09/2009	EXAMINER			
EDELL, SHAPII	RO & FINNAN, LLO	AHMED, ENAM			
1901 RESEARCH	BOULEVARD	ART UNIT	PAPER NUMBER		
SUITE 400 ROCKVILLE, MD 20850			2112 DATE MAILED: 11/09/200	9	

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 411 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 411 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Application No. Applicant(s) 10/534 359 VALADON, CYRIL Notice of Allowability Examiner Art Unit ENAM AHMED

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

- This communication is responsive to 5/9/05.
- The allowed claim(s) is/are 20-36.
- 3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - b) ☐ Some* c) ☐ None of the:
 - 1. T Certified copies of the priority documents have been received.
 - 2. Certified copies of the priority documents have been received in Application No. __
 - 3. Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

- A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
- CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) Including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached 1) hereto or 2) to Paper No./Mail Date
 - (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6.

DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- 1.

 Notice of References Cited (PTO-892)
- Notice of Draftperson's Patent Drawing Review (PTO-946).
- 3. Information Disclosure Statements (PTO/SB/08), Pacer No./Mail Date
- 4. T Examiner's Comment Regarding Requirement for Deposit of Biological Material
- 5. Notice of Informal Patent Application 6 Interview Summery (PTO-413)
- Paper No./Mail Date 7. T Examiner's Amendment/Comment
- 8. X Examiner's Statement of Reasons for Allowance
- 9. ☐ Other

/MUJITABA K CHAUDRY/ Primary Examiner, Art Unit 2112

Application/Control Number: 10/534,359

Art Unit: 2112

Reasons for allowance

Claims 20-36 are allowed.

The following is an Examiner's statement of reasons for allowance: the prior art is exemplified by NPL reference "Blind Rate Detection Algorithm in WCDMA Mobile

Receiver" (Insoo Sohn and Scoyoung Lee).

1. The NPL reference "Blind Rate Detection Algorithm in WCDMA Mobile Receiver" (Insoo Sohn and Seoyoung Lee) teaches an BTFD algorithm, also known as a Blind rate Detection Algorithm, wherein an add-compare-select operation is performed on a length of data blocks for rate i, including CRC parity bits. After, the ACS operation has been performed, a threshold parameter such as S(N) is assigned, wherein within the threshold parameter, Ao(i), is the state metric at zero state for rate i, Amin(i), is the minimum state metric for rate i, and finally Amax(i), is the maximum state metric for rate i. The threshold parameter is compared with a pre-defined threshold value T, wherein if, the threshold parameter is less than T, a traceback operation is performed. However, if the threshold is larger than T, then the rate i is viewed as an incorrect candidate, and the next rate is tested. The data blocks which pass the threshold check, are passed onto the next step, which is a CRC check. If the CRC detection was negative for rate i, then the rate i is declared to be false. However, if the rate i passed the CRC detection, the threshold parameter is compared with a minimum threshold Smin. Finally, if the

threshold parameter (with data blocks), which have successfully passed the threshold test

Application/Control Number: 10/534,359

Art Unit: 2112

and the CRC detection test, is a value smaller than Smin, then Smin will have to be updated. The same procedure is iterated for every pre-defined data rate, wherein the final survivor within the minimum threshold is defined as the estimated transmitted data rate.

However, the cited NPL reference "Blind Rate Detection Algorithm in WCDMA Mobile Receiver" (Insoo Sohn and Seoyoung Lee) does not teach using a Viterbi algorithm to determine trellis metrics for a point in said signal that would be an end point of a candidate block according to the given candidate format and performing a check using said decoded part to determine whether the candidate block satisfies an error protection scheme of the given candidate format.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Enam Ahmed whose telephone number is 571-270-1729. The examiner can normally be reached on Mon-Fri from 8:30 A.M. to 5:30 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Scott Baderman, can be reached on 571-272-3644. Application/Control Number: 10/534,359 Page 4

Art Unit: 2112

The fax phone number for the organization where this application or proceeding

is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published

applications may be obtained from either Private PAIR or Public PAIR. Status

information for unpublished applications is available through Private PAIR only. For

more information about the PAIR system, see http://pair-direct.uspto.gov. Should you

have questions on access to the Private PAIR system, contact the Electronic Business

Center (EBC) at 866-217-9197 (toll-free).

EA

10/30/09

/MUJTABA K CHAUDRY/

Primary Examiner, Art Unit 2112